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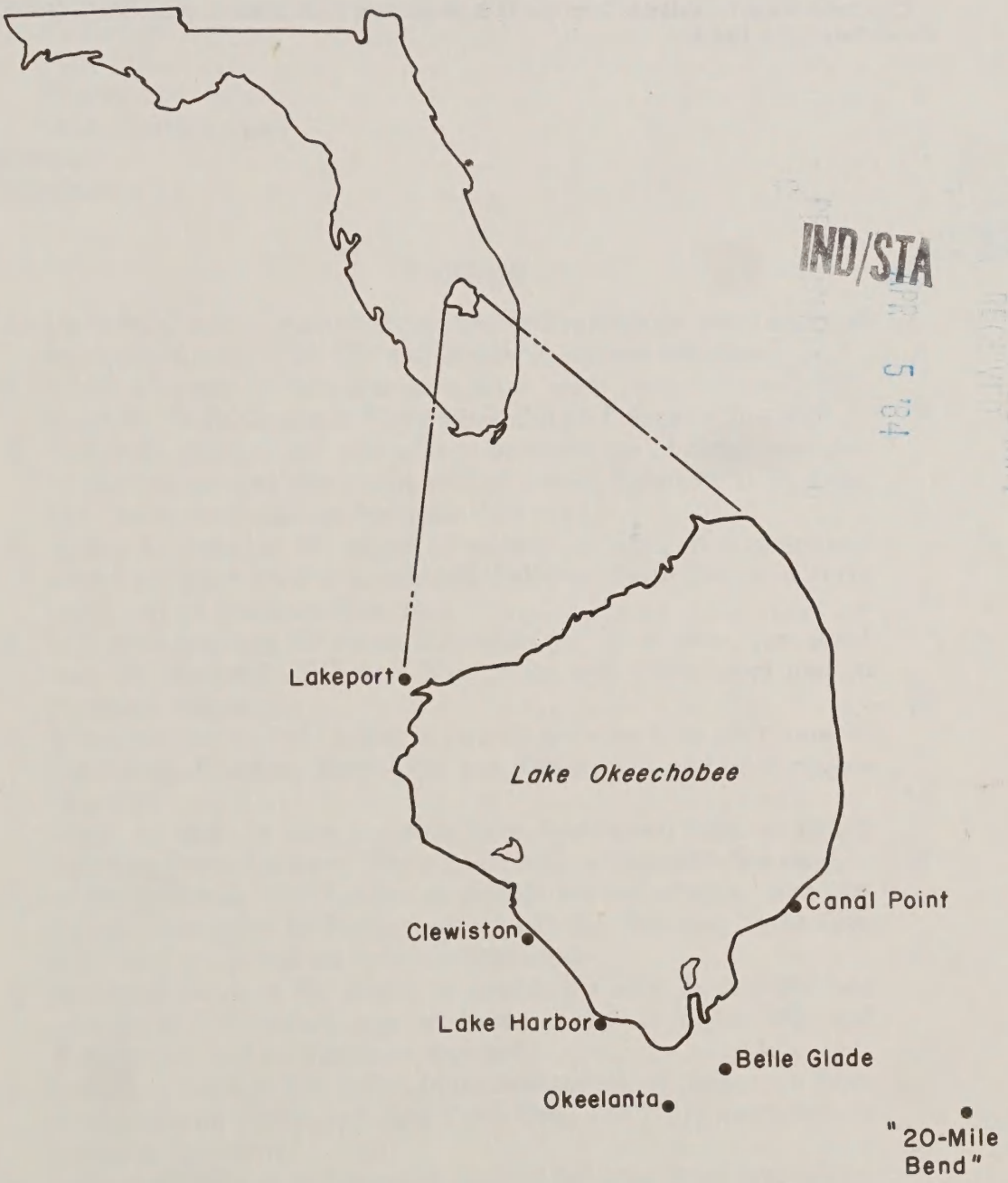
Sugarcane Variety Tests in Florida

1981-82 Harvest Season



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Sugarcane Variety Tests in Florida. 1981–82 Harvest Season. September 1982.

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Sugarcane Variety Tests in Florida

1981–82 Harvest Season

B. Glaz,[1] J. L. Dean,[2] M. S. Kang,[3] J. D. Miller,[4] P. Y. P. Tai,[4] and O. Sosa, Jr.[5]

ABSTRACT

Twenty-eight new Canal Point (CP) varieties of sugarcane (11 in second-ratoon cane, 6 in first-ratoon cane, and 11 in plant cane) were grown in replicated tests and harvested at 8 locations representing 6 soil series (Terra Ceia muck, Pahokee muck, Lauderhill muck, Dania muck, Torry muck, and Pompano fine sand). The cane and sugar yields of these varieties, interspecific hybrids of *Saccharum* spp., were compared with those of CP 63–588, the most widely grown sugarcane variety in Florida. Each variety was also rated for its reaction to sugarcane smut, *Ustilago scitaminea* H. Syd. & P. Syd., in separate inoculation tests and by natural infection and for its reaction to sugarcane rust, *Puccinia melanocephala* H. Syd. & P. Syd., by natural infection. In the plant-cane tests, CP 77–1776 showed potential as an early-maturing variety with high sucrose yields. In the first-ratoon tests, CP 76–1519 was the leading variety overall, and CP 75–1322 was an excellent variety on Torry muck and Pompano fine sand. Both CP 76–1519 and CP 75–1322 had above normal tolerance to freezing temperatures. Three varieties in the second-ratoon tests, CP 75–1082, CP 75–1553, and CP 75–1632, were scheduled for release. CP 75–1082 and CP 75–1553 yielded significantly more sugar per acre than CP 63–588. CP 75–1632 had yields of sugar per acre not significantly different from CP 63–588 but had higher early and harvest yields of sugar per ton than CP 63–588. Index terms: Dania muck, Florida, Lauderhill muck, Pahokee muck, Pompano fine sand, *Puccinia melanocephala* H. Syd. & P. Syd., *Saccharum* spp., sugarcane rust, sugarcane smut, sugarcane varieties, sugarcane yields, sugar yields, Terra Ceia muck, Torry muck, *Ustilago scitaminea* H. Syd. & P. Syd.

INTRODUCTION

Varietal selection is one of the many components involved in the successful production of sugarcane, interspecific hybrids of *Saccharum* spp., in Florida. Although production of sugar per acre is a very important characteristic, it is not the only yield factor upon which sugarcane

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is evaluated. In addition, analyses are made on the quantity of cane needed to produce a particular sugar yield and on the fiber content of the cane. The time of year that a variety has its highest amount of sugar per acre is a very important factor in Florida, where many producers are continuously harvesting sugarcane from late October through March. Sugarcane growers in Florida usually obtain three to four crop cycles from each planting; thus, varieties are also evaluated on their ability to produce good ratoon-cane yields as well as good plant-cane yields.

Varieties that display favorable results with respect to the above characteristics must also be productive in the presence of major disease, insect, and weed pests. The determination of pest-resistant levels in varieties that are otherwise satisfactory for commercial production can be a complicated process that takes several years to complete. The variety-selection team must be as careful not to disqualify varieties that could be grown commercially without significantly increasing pest populations or causing pest-related yield losses as it is in disqualifying varieties that are too susceptible to pests to be grown commercially. Recent attacks of sugarcane smut, *Ustilago scitaminea* H. Syd. & P. Syd., and sugarcane rust, *Puccinia melanocephala* H. Syd. & P. Syd., indicate that a particular variety may or may not show severe symptoms in different years on various soils and under diverse climatic conditions. One means of coping with this complex situation is illustrated by a suggestion made upon release of Canal Point (CP) variety CP 73–1547 that it not be planted in areas having a high incidence of smut (Miller et al. 1982). As more is learned about pest control in the future, the practice of suggesting restrictions on the planting of new varieties may become more common.

The 1981–82 harvest season was the third straight harvest season during which sugarcane in Florida suffered from freezing temperatures. Like last year, some areas where sugarcane was grown registered temperatures below 20° F. Identification of varieties that have shown more tolerance to cold temperatures continues to be a high priority of the cooperative sugarcane variety selection program (Agricultural Research Service, USDA; University of Florida Institute of Food and Agricultural Sciences; and the Florida Sugar Cane League, Inc.) in Florida.

The varieties tested in the replicated tests described herein are those that have performed well in previous tests for some of the above characteristics. The major purpose of this publication is to make available to Florida sugarcane growers the data collected in replicated yield trials of the cooperative sugarcane variety selection program.

TEST PROCEDURES

Twenty-three replicated test plantings of 28 new varieties (11 in plant cane, 6 in first-ratoon cane, and 11 in second-ratoon cane) and the standard variety, CP 63–588, were harvested at 8 growers' farms. There were plant-cane, first-ratoon, and second-ratoon experiments at each location except Lykes Bros.' farm, where there was no second-ratoon experiment. There were four experiments on Terra Ceia muck. Included were first- and second-ratoon tests at Wedgworth Farms, Inc., east of Belle Glade; the first-ratoon test at South Florida Industries near 20-Mile Bend in Palm Beach County; and the plant-cane test on the properties of Gulf and Western Food Products Co. at Okeelanta. Eight experiments were on Pahokee muck, which is similar to Terra Ceia, Lauderhill, and Dania muck but not as deep as Terra Ceia muck and deeper than the other two soils (Snyder et al. 1978). Included were the first- and second-ratoon tests on A. Duda and Sons' farm east of Belle Glade and at New Farm, Inc., east of Canal Point; the plant-cane and second-ratoon experiments at South Florida Industries; the plant-cane test at Wedgworth Farms; and the first-ratoon test at Okeelanta. Five experiments on Lauderhill muck included the plant-cane tests at A. Duda and Sons, New Farm, Inc., and A. F. Saunders, Inc., south of Clewiston and the second-ratoon tests at Okeelanta and A. F. Saunders. The first in this series of variety tests to be recorded on Dania muck was the first-ratoon test at A. F. Saunders. Three experiments at the Beardsley farm near Lake Harbor were on Torry muck. Plant-cane and first-ratoon tests on Pompano fine sand were at Lykes Bros.' farm near Lakeport in Glades County.

Selection of each variety for planting in the replicated yield trials was based on 5 years of data collected in the variety development program. CP 63–588, the variety grown on the highest percentage of Florida sugarcane acreage since

1975 (Glaz 1981), was used as the check or standard variety in all experiments. In each of the 23 tests, varieties were planted with 2 lines of seed cane per furrow in plots of one sixty-second acre in a randomized complete-block design with 4 replications. Each plot was 35 feet long and 20 feet wide. The distance between rows was 5 feet, and a distance of 5 feet separated the end of each plot row and the beginning of the next plot row. The margins of each experiment were buffered to reduce mechanical damage and border effects, but individual four-row plots were not buffered.

Sugarcane management practices, such as fertilizing, cultivating, controlling of pests, burning, loading, and hauling, were the same for each experimental plot as for the commercial field in which the plot was located.

To evaluate early-season sugar production, 10 stalks per plot were taken at random from the unburned standing cane in 2 of the 4 replications at each location, except A. F. Saunders, between October 20 and October 28, 1981. These samples were milled, the crusher juice was analyzed for Brix and sucrose, and the indicated yields of sugar per ton of cane were determined. To calculate the yield of sugar per acre from these preharvest data, we assumed that the preharvest yield of cane per acre was equal to the actual yield of cane per acre obtained at harvest.

All replicated tests were harvested between October 28, 1981, and February 26, 1982. After each plot had been burned, except for the second-ratoon test plot at South Florida Industries, all cane was cut and piled by hand and then weighed with a tractor-mounted weighing device. Fifteen full-length stalks were taken at random from each plot and transported to the Agricultural Research Service's Laboratory at Canal Point for weighing, milling, and crusher-juice analysis.

All values for yields of sugar per ton of cane and sugar per acre in this report are indicated (theoretical) yields calculated in accordance with a simplification of the Winter-Carp-Geerligs formula (Arceneaux 1935); an explanation of the formula is given in a previous publication (Rice and Hebert 1972).

Although the indicated sugar yields reported herein may not be obtained by all sugar factories, they are representative of average values that can be obtained in Florida, and more importantly, are valid for comparing varieties having different milling qualities and sucrose reduction factors.

RESULTS AND DISCUSSION

In past variety reports, experimental data from locations on Terra Ceia, Pahokee, and Lauderhill muck were listed together in one combined table for each type of analysis, and data from locations on Torry muck and Pompano fine sand were listed in separate tables. This grouping of locations was justified by the assumption that the similarities among them would cause similar varietal responses. Conversely, since the locations on Torry muck and Pompano fine sand were so different from each other and from the other locations, it was assumed that varietal responses would be unique at these two locations. However, two reports (B. Glaz and J. D. Miller, unpublished data; P. Y. P Tai, E. R. Rice, V. Chew, and J. D. Miller, unpublished data) indicated that varietal responses were unique at most locations each year. This situation left us the choice of showing each location in separate tables or all of the locations in one table. We chose the latter alternative, although individual location data are still available within each table.

In last year's report, alpha levels of 5% and 20%[6] were presented in the tables, and significant differences were based on the 20% levels (Glaz et al. 1981). Since that time, we have obtained a report that explains how to calculate accurate estimates of beta (type II error rates) at various alpha levels (Bowman and Kastenbaum 1975). Glaz et al. (1982) concluded that both types of errors were costly to the Florida sugarcane industry and that type II errors were slightly more serious than type I errors. Calculations using data from previous sugarcane variety tests indicated that when alpha was set at 5%, beta also approximated 5%. However, when alpha was raised to 10%, beta approximated 1%. So we determined that the best compromise was for both alpha and beta to be at the 5% level. Therefore, significant differences cited in this report refer to the 5% alpha levels given in the tables. Ten-percent alpha levels are also reported in the tables for those who prefer the higher type I and lower type II error rates.

The parentage, variety correction factor, and

[6]A 20% alpha level means that, if for all comparisons made the varieties (treatments) being compared were in reality equal, a type I error would result from 20% of the comparisons.

reactions to smut and rust are listed in table 1 for each variety included in these tests. The results of the plant-cane experiments are shown in tables 2–6, and the results of the first-ratoon experiments are given in tables 7–11. Tables 12–16 contain the results of the second-ratoon experiments.

Plant Cane

Four varieties, CP 77–1414, CP 77–1720, CP 77–1055, and CP 77–1125, yielded significantly more cane per acre than CP 63–588 (table 2). But only one of these, CP 77–1720, yielded significantly more sugar per acre than CP 63–588 (table 6). However, CP 77–1720 has shown a high susceptibility to smut and therefore is not acceptable for commercial production (table 1).

One other plant-cane variety of interest was CP 77–1776. This variety was not outstanding in production of cane or sugar per acre, although it was not significantly lower than CP 63–588 in either of these characteristics (tables 2 and 6). The outstanding feature of CP 77–1776 was its early yield of sugar per ton of cane, which was significantly higher than all other plant-cane varieties (table 3). CP 77–1414 and CP 77–1776 were the two highest yielders of early sugar per acre, with essentially equal yields (table 4). However, CP 77–1776 produced its sugar per acre on 24% less cane per acre than CP 77–1414 (table 2). Also, CP 77–1776 has shown intermediate resistance to smut and excellent resistance to rust. Therefore, seed cane of this variety is currently being increased (table 1).

First-Ratoon Cane

CP 76–1519 and CP 75–1322 were the outstanding varieties in production of sugar per acre, but neither had significantly higher yields than CP 63–588 (table 11). Both of these new varieties also had high yields of cane per acre, but only CP 75–1322 was significantly higher than CP 63–588 (table 7). CP 76–1519 produced significantly more sugar per ton of cane than CP 75–1322, but neither variety was significantly different from CP 63–588 (table 10). CP 75–1322 did particularly well on Torry muck and Pompano fine sand, while CP 76–1519 did well on all soils except Torry muck (table 11). Data from the two locations that were harvested after severe freezes, New Farm, Inc., and South Florida Industries, show that both CP 76–1519 and CP 75–1322 had more cold tolerance than the other varieties in this group. CP 76–1519 and CP 75–1322 had the highest yields of sugar per ton of cane at New Farm, Inc., and ranked first and third, respectively, at South Florida Industries (table 10). As plant cane, CP 76–1519 (Glaz et al. 1981) ranked higher in tonnage and lower in sugar per ton than it did as first-ratoon cane in these tests. CP 75–1322 performed similarly as plant cane and first-ratoon cane; it had high yields on Torry muck and Pompano fine sand and mediocre yields on the other soils (Glaz et al. 1981). Both of these new varieties have shown excellent resistance to smut and rust (table 1).

Second-Ratoon Cane

Three varieties, CP 75–1091, CP 75–1082, and CP 75–1553, significantly outyielded CP 63–588 in cane and sugar per acre in the average of the seven locations at which tests were conducted (tables 12 and 16). Therefore, seed cane for possible commercial release is currently being increased for CP 75–1082 and CP 75–1553 (table 1). But seed cane of CP 75–1091 is not being increased because it is too susceptible to smut for commercial production. Seed cane of CP 75–1632 is also being increased. This variety had yields of cane and sugar per acre not significantly different from those of CP 63–588, but its yield of sugar per ton of cane was significantly higher than that of CP 63–588 (tables 12, 15, and 16).

CP 75–1082 had the second highest production of cane and sugar per acre for the average of the seven locations but produced significantly less than CP 75–1091 in both of these characteristics (tables 12 and 16). With the same yield of sugar per ton of cane as CP 75–1091, CP 75–1082 also ranked low in this characteristic but not significantly lower than CP 63–588 (table 15). CP 75–1553 yielded less sugar per acre and more sugar per ton of cane than CP 75–1082, although the two varieties were not significantly different in either of these characteristics (tables 15 and 16). In production of tons of cane per acre, CP 75–1553 was significantly lower than CP 75–1082 (table 12). In plant cane and first-ratoon cane, CP 75–1553 produced significantly more cane and sugar per acre than CP 75–1082, but there were no significant differences between the two varie-

ties in production of sugar per ton of cane (Glaz et al. 1980, 1981). Both of these varieties have displayed excellent resistance to smut, but CP 75–1553 has shown intermediate susceptibility to rust (table 1).

SUMMARY

The plant-cane experiments contained one promising variety, CP 77–1776. It produced about the same amounts of cane and sugar per acre as CP 63–588 but was outstanding in production of sugar per ton of cane in the preharvest tests. CP 77–1776 has also shown an intermediate level of susceptibility to smut. Therefore, it will be further tested as part of the increase program.

Combining the data of the last 2 years gave two promising varieties from the first-ratoon tests, CP 76–1519 and CP 75–1322. Generally, these two varieties had similar yields of tons of cane per acre, but CP 76–1519 produced more sugar per ton of cane. The major exception to the above was the experiment on Torry muck, in which CP 75–1322 produced significantly more tons of cane per acre and more, but not significantly more, sugar per ton of cane than CP 76–1519. CP 75–1322 also had high yields on Pompano fine sand.

Combining the data of the last 3 years for varieties in the second-ratoon experiments showed CP 75–1082, CP 75–1553, and CP 75–1632 to be the outstanding varieties. CP 75–1082 and CP 75–1553 have consistently had significantly higher yields of sugar per acre than CP 63–588. CP 75–1632, which has an excellent variety correction factor, produced about the same amount of sugar per acre over 3 years as CP 63–588, but it did so with a higher sugar per ton of cane. CP 75–1091, the highest yielding variety in the history of these experiments, showed too much susceptibility to smut to be considered as a commercial variety.

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Table 1.—Parentage, variety correction factors, and ratings for smut and rust susceptibility of CP 63–588 and 28 new sugarcane varieties[1]

Variety	Parentage[2]	VCF	Rating[3]	
			Smut	Rust
CP 63–588	Cl 54–191×CP 57–120	1.000	R	I
CP 75–1082[4]	CP 68–1067×CP 70–1133	.983	R	R
CP 75–1091	CP 68–1067×CP 70–1133	.986	S	R
CP 75–1257	CP 70–1512×CP 63–588	.980	R	R
CP 75–1283	CP 70–1233×CP 68–1026	.984	I	R
CP 75–1322	CP 69–1059×CP 57–614	.963	R	R
CP 75–1353	CP 68–1154×CP 68–1026	.994	R	R
CP 75–1411	CP 63–588×CP 68–1026	.963	R	R
CP 75–1428	CP 63–588×CP 66–1043	1.003	S	S
CP 75–1553[4 5]	73 P2 CP 68–1026	.998	R	I
CP 75–1632[4]	CP 68–1067×CP 70–1133	1.037	I	R
CP 75–1693	Cl 54–378×CP 63–588	1.009	I	S
CP 75–1935	CP 70–1133×CP 66–1043	.993	R	R
CP 75–1984[6]	Unknown	.955	S	S
CP 76–1050	CP 68–1154×CP 68–1022	.963	R	R
CP 76–1053	CP 68–1154×CP 68–1022	.989	I	R
CP 76–1306	Cl 54–378×CP 63–588	.939	R	S
CP 76–1519	CP 65–357×CP 68–1026	1.000	R	R
CP 77–1008	CP 65–357×Cl 54–1910	.938	R	I
CP 77–1049	CP 68–1154×CP 68–1022	1.001	I	R
CP 77–1055	CP 68–1154×CP 68–1022	.973	S	I
CP 77–1125	CP 63–588×CP 56–63	.966	R	R
CP 77–1148	CP 65–357×CP 68–1022	.962	I	R
CP 77–1400	CP 70–1133×CP 69–1059	.993	I	R
CP 77–1404	CP 68–1067×CP 69–1056	.958	R	R
CP 77–1414	CP 68–1067×CP 69–1056	.928	R	R
CP 77–1446	CP 69–1062×CP 63–306	.946	S	S
CP 77–1720	CP 68–1154×CP63–588	.994	S	R
CP 77–1776[4]	CP 68–1067×CP 68–1022	1.062	I	R

[1]Variety correction factors (VCF) were used to calculate the theoretical yield of 96° sugar per ton of cane according to Arceneaux's simplification of the Winter-Carp-Geerligs formula.

[2]Cl 54–191, Cl 54–378, and Cl 54–1910 are varieties developed by the United States Sugar Corporation, Clewiston, Fla.

[3]The following general ratings were used to describe variety susceptibility to smut and rust: R, resistant enough for commercial production. S, too susceptible for commercial production. I, intermediate, probably resistant enough for commercial production, but this has not been definitely established.

[4]Seed cane of this variety is currently being increased in the cooperative variety development program for potential release.

[5]73 P2 was the 2d polycross made in the 1973 crossing season. In this polycross, the female parent (CP 68–1026) was exposed to pollen from 5 varieties; therefore, the male parent of CP 75–1553 is unknown.

[6]Parentage of CP 75–1984 was lost.

Table 2.—Yields of cane, in tons per acre, from plant cane on Lauderhill, Pahokee, Terra Ceia, and Torry muck and on Pompano fine sand

Variety	Average yield by soil series, farm, and harvest date								
	Lauderhill muck			Pahokee muck		Terra Ceia muck, Okeelanta 2/9/82	Torry muck, Beardsley 2/18/82	Pompano fine sand, Lykes Bros. 12/16/81	Average yield, all farms
	Saunders 10/28/81	New Farm, Inc. 2/2/82	Duda 2/13/82	Wedgworth 1/15/82	South Florida Industries 2/3/82				
CP 77–1414	54.73	61.16	65.16	65.18	75.81	39.11	67.72	52.50	60.17
CP 77–1720	59.17	60.90	59.59	55.58	65.20	42.68	67.46	46.48	57.13
CP 77–1055	49.74	51.96	51.05	59.38	60.66	41.89	61.64	41.96	52.28
CP 77–1125	40.17	47.29	48.61	46.45	61.76	36.90	76.93	44.50	50.33
CP 77–1008	44.95	46.37	47.44	47.91	57.91	38.22	58.32	43.68	48.10
CP 63–58	42.09	30.68	44.44	50.81	52.78	40.66	71.27	46.86	47.45
CP 77–1404	42.25	44.03	47.56	48.84	58.47	31.05	67.77	34.20	46.77
CP 77–1776	41.09	41.51	47.95	47.59	57.27	34.59	57.54	38.42	45.74
CP 77–1148	37.33	41.38	41.48	49.67	51.88	35.90	57.80	45.53	45.12
CP 77–1446	41.42	42.14	45.48	48.31	51.19	36.76	49.07	35.46	43.73
CP 77–1049	45.19	46.31	37.42	37.57	46.93	31.87	58.51	41.92	43.21
CP 77–1400	46.84	36.83	41.96	33.47	51.04	28.50	39.06	38.98	39.58
Mean	45.41	45.88	48.17	49.22	57.57	36.51	61.09	42.54	48.29
LSD:[1]									
5% level	6.45	4.34	5.52	6.79	6.45	4.11	8.57	4.07	2.03
10% level	5.36	3.60	4.59	5.64	5.36	3.42	7.12	3.38	1.71
CV[2]	9.80	6.50	7.90	9.50	7.80	7.80	9.70	6.80	8.60

[1]LSD=Least significant difference.
[2]CV=Coefficient of variation.

Table 3.—Indicated yields of 96° sugar, in pounds per ton of cane, from preharvest samples of plant cane on Lauderhill, Pahokee, Terra Ceia, and Torry muck and on Pompano fine sand

Variety	Average yield by soil series, farm, and sampling date							Average yield, all farms
	Lauderhill muck		Pahokee muck		Terra Ceia muck, Okeelanta 10/23/81	Torry muck, Beardsley 10/26/81	Pompano fine sand, Lykes Bros. 10/27/81	
	New Farm, Inc. 10/20/81	Duda 10/22/81	South Florida Industries 10/20/81	Wedgworth 10/22/81				
CP 77–1776	188.8	240.5	253.6	236.4	231.8	224.7	298.2	239.1
CP 77–1148	185.8	208.7	201.4	208.2	221.8	202.4	281.4	215.6
CP 77–1400	205.6	212.8	181.5	183.2	226.0	209.5	281.4	214.3
CP 77–1049	189.2	211.4	217.8	186.8	209.7	214.2	264.9	213.4
CP 77–1055	166.4	191.3	177.0	211.3	207.6	190.3	289.8	204.8
CP 77–1446	179.2	197.6	195.0	204.8	195.8	188.0	245.0	200.8
CP 77–1720	163.0	198.4	172.4	197.4	178.4	183.0	248.8	191.6
CP 77–1404	156.6	186.2	177.2	181.2	181.5	187.2	234.0	186.2
CP 77–1125	153.4	168.2	162.8	173.4	174.6	189.4	255.8	182.5
CP 77–1008	142.6	172.6	169.8	192.7	177.8	178.7	223.0	179.6
CP 77–1414	150.6	181.6	168.6	183.7	151.6	166.6	245.0	178.2
CP 63–588	109.5	163.0	165.4	166.2	180.0	194.0	248.4	175.2
Mean	165.9	194.3	186.9	193.8	194.7	194.0	259.6	198.4
LSD:[1]								
5% level	19.4	24.5	18.3	([2])	28.8	([2])	24.2	12.4
10% level	15.8	20.0	15.0	([2])	23.5	([2])	19.8	10.4
CV[3]	7.5	8.1	6.3	11.0	9.5	9.4	6.0	8.3

[1]LSD=Least significant difference.
[2]No significant difference among values.
[3]CV=Coefficient of variation.

Table 4.—Indicated yields of 96° sugar, in pounds per acre, from preharvest samples of plant cane on Lauderhill, Pahokee, Terra Ceia, and Torry muck and on Pompano fine sand

Variety	Average yield by soil series, farm, and sampling date[1]							Average yield, all farms
	Lauderhill muck		Pahokee muck		Terra Ceia muck, Okeelanta 10/23/81	Torry muck, Beardsley 10/26/81	Pompano fine sand, Lykes Bros. 10/27/81	
	New Farm, Inc. 10/20/81	Duda 10/22/81	South Florida Industries 10/20/81	Wedgworth 10/22/81				
CP 77–1414	9,028	11,290	12,886	11,894	6,630	11,928	13,086	10,963
CP 77–1776	7,797	11,240	14,449	10,658	8,299	13,978	10,066	10,927
CP 77–1720	9,869	11,542	11,225	9,796	7,557	11,950	11,082	10,432
CP 77–1055	8,138	9,069	10,458	12,444	9,476	11,352	11,930	10,409
CP 77–1148	7,814	9,321	9,944	10,456	7,532	11,588	12,024	9,811
CP 77–1125	7,325	8,310	9,936	8,175	6,692	14,430	11,184	9,436
CP 77–1049	8,236	8,436	9,908	7,044	7,186	13,042	11,456	9,330
CP 77–1446	7,434	8,822	9,542	9,937	7,293	10,367	7,827	8,746
CP 77–1404	7,379	8,378	10,445	8,656	5,988	12,153	7,786	8,684
CP 77–1008	6,546	7,791	10,700	9,056	6,890	10,183	9,336	8,643
CP 63–588	3,470	7,148	8,982	8,218	7,416	13,204	11,642	8,583
CP 77–1400	7,472	8,540	8,693	5,844	6,618	8,544	10,905	8,088
Mean	7,542	9,157	10,597	9,348	7,298	11,893	10,694	9,504
CV[2]	12.9	6.1	10.0	14.2	14.2	15.0	8.5	([3])

[1]Yields are based on early sucrose analysis, assuming that early yields of cane per acre are equal to actual yields at harvest.
[2]CV=Coefficient of variation.
[3]Not determined.

Table 5.—Indicated yields of 96° sugar, in pounds per ton of cane, from plant cane on Lauderhill, Pahokee, Terra Ceia, and Torry muck and on Pompano fine sand

Variety	Average yield by soil series, farm, and harvest date								Average yield, all farms
	Lauderhill muck			Pahokee muck		Terra Ceia muck, Okeelanta 2/9/82	Torry muck, Beardsley 2/18/82	Pompano fine sand, Lykes Bros. 12/16/81	
	Saunders 10/28/81	New Farm, Inc. 2/2/82	Duda 2/13/82	Wedgworth 1/15/82	South Florida Industries 2/3/82				
CP 77–1776	248.0	70.0	126.2	233.4	178.4	113.7	246.2	326.6	192.8
CP 77–1049	229.8	99.3	131.8	233.2	175.4	118.9	207.3	312.7	188.5
CP 77–1720	189.2	111.6	172.9	222.3	172.5	157.0	202.5	276.8	188.1
CP 63–588	197.2	121.0	144.7	199.2	176.2	137.2	208.1	287.6	183.9
CP 77–1055	217.7	76.4	163.7	215.0	177.0	120.6	205.6	275.3	181.4
CP 77–1125	207.3	133.6	130.0	197.4	174.2	120.6	175.8	273.0	176.5
CP 77–1148	216.2	81.0	108.2	198.1	165.2	154.0	193.6	295.6	176.5
CP 77–1446	205.4	85.6	151.2	208.0	163.3	115.8	180.9	260.6	171.3
CP 77–1400	223.8	89.8	106.7	182.0	154.2	83.6	191.1	298.0	166.1
CP 77–1008	169.9	60.2	129.3	206.3	152.8	157.5	191.2	253.4	165.1
CP 77–1414	203.2	56.7	117.4	192.0	155.0	99.4	183.5	254.6	157.7
CP 77–1404	192.7	70.7	94.4	205.8	136.6	106.2	181.5	271.6	157.4
Mean	208.4	88.0	131.3	206.9	165.0	123.7	197.3	282.1	175.3
LSD:[1]									
5% level	15.2	36.0	36.7	21.2	22.5	33.7	20.5	20.1	9.2
10% level	12.7	29.9	30.5	17.6	18.7	28.0	17.1	16.7	7.7
CV[2]	5.1	28.3	19.3	7.1	9.5	19.2	7.2	4.9	12.5

[1]LSD=Least significant difference.
[2]CV=Coefficient of variation.

Table 6.—Indicated yields of 96° sugar, in pounds per acre, from plant cane on Lauderhill, Pahokee, Terra Ceia, and Torry muck and on Pompano fine sand

Variety	Average yield by soil series, farm, and harvest date								Average yield, all farms
	Lauderhill muck			Pahokee muck		Terra Ceia muck, Okeelanta 2/9/82	Torry muck, Beardsley 2/18/82	Pompano fine sand, Lykes Bros. 12/16/81	
	Saunders 10/28/80	New Farm, Inc. 2/2/82	Duda 2/13/82	Wedgworth 1/15/82	South Florida Industries 2/3/82				
CP 77–1720	11,114	6,807	10,306	12,373	11,253	6,684	13,676	12,864	10,635
CP 77–1414	11,150	3,437	7,517	12,515	11,734	3,824	12,424	13,356	9,495
CP 77–1055	10,812	3,964	8,303	12,783	10,770	5,022	12,648	11,520	9,478
CP 63–588	8,570	3,719	6,426	10,120	9,309	5,560	14,852	13,447	9,000
CP 77–1776	10,191	2,881	6,050	11,105	10,224	3,886	14,196	12,538	8,884
CP 77–1125	8,325	6,333	6,277	9,137	10,764	4,463	13,471	12,144	8,864
CP 77–1049	10,426	4,625	5,036	8,801	8,250	3,736	12,117	13,109	8,262
CP 77–1148	8,092	3,340	4,423	9,849	8,631	5,498	11,283	13,439	8,069
CP 77–1008	7,633	2,790	5,962	9,358	8,847	6,015	11,124	11,072	7,850
CP 77–1446	8,486	3,631	6,845	10,031	8,353	4,260	8,874	9,227	7,463
CP 77–1404	8,122	3,152	4,432	10,073	8,006	3,303	12,279	9,291	7,332
CP 77–1400	10,500	3,394	4,454	6,044	7,900	2,290	7,468	11,624	6,709
Mean	9,452	4,006	6,336	10,183	9,503	4,545	12,034	11,972	8,504
LSD:[1]									
5% level	1,373	1,841	1,829	1,668	1,828	1,101	1,987	1,223	559
10% level	1,141	1,530	1,520	1,402	1,519	915	1,651	1,017	469
CV[2]	10.1	31.8	20.0	11.5	13.3	16.8	11.4	7.6	18.0

[1]LSD=Least significant difference.
[2]CV=Coefficient of variation.

Table 7.—Yields of cane, in tons per acre, from first-ratoon cane on Dania, Pahokee, Terra Ceia, and Torry muck and on Pompano fine sand

Variety	Average yield by soil series, farm, and harvest date								Average yield, all farms
	Dania muck, Saunders 1/4/82	Pahokee muck			Terra Ceia muck		Torry muck, Beardsley 2/19/82	Pompano fine sand, Lykes Bros. 12/15/81	
		Duda 11/30/81	Okeelanta 12/3/81	New Farm, Inc. 2/10/82	Wedgworth 1/12/82	South Florida Industries 2/12/82			
CP 76–1306	40.61	55.38	47.05	39.51	48.33	45.78	59.46	37.52	46.70
CP 75–1322	30.06	54.30	45.30	26.92	47.05	41.59	63.06	48.20	44.56
CP 76–1519	25.79	56.13	45.72	35.36	45.08	39.89	49.85	45.13	42.87
CP 63–588	26.47	52.93	43.35	29.03	43.11	36.07	60.09	38.86	41.24
CP 76–1053	32.23	46.66	37.36	35.31	37.73	39.93	46.78	31.44	38.43
CP 76–1050	23.26	46.38	39.45	34.32	31.47	39.20	48.87	34.37	37.16
CP 75–1411	28.43	46.74	33.29	22.14	33.46	39.54	40.83	36.29	35.09
Mean	29.55	51.22	41.64	31.79	40.89	40.28	52.69	38.82	40.87
LSD:[1]									
5% level	6.74	6.81	4.69	4.36	4.89	(2)	6.30	(2)	2.51
10% level	5.60	5.64	3.87	3.61	4.04	(2)	5.20	(2)	2.10
CV[3]	15.50	9.00	7.60	9.30	8.50	13.50	8.00	24.30	12.50

[1]LSD=Least significant difference.
[2]No significant differences among values.
[3]CV=Coefficient of variation.

Table 8.—Indicated yields of 96° sugar, in pounds per ton of cane, from preharvest samples of first-ratoon cane on Dania, Pahokee, Terra Ceia, and Torry muck and on Pompano fine sand

Variety	Average yield by soil series, farm, and sampling date								Average yield, all farms
	Dania muck, Saunders 10/28/81	Pahokee muck			Terra Ceia muck		Torry muck, Beardsley 10/26/81	Pompano fine sand, Lykes Bros. 10/27/81	
		New Farm, Inc. 10/20/81	Duda 10/22/81	Okeelanta 10/23/81	South Florida Industries 10/20/81	Wedgworth 10/22/81			
CP 76–1053	231.4	204.3	201.0	217.4	199.0	238.1	243.9	246.8	222.7
CP 63–588	214.2	197.1	207.4	212.2	220.8	241.8	210.6	265.0	221.1
CP 75–1411	186.2	180.2	226.0	212.0	220.1	240.1	234.2	260.0	219.8
CP 76–1050	209.8	213.7	215.0	229.0	195.2	196.8	225.1	250.3	216.8
CP 75–1322	240.0	170.0	218.2	195.9	198.6	184.5	230.8	240.8	209.8
CP 76–1519	213.4	171.5	219.3	222.2	176.8	223.4	212.4	217.0	207.0
CP 76–1306	196.4	173.5	196.6	196.9	172.4	180.3	197.5	236.4	193.7
Mean	212.5	187.1	211.9	212.2	197.5	215.0	222.1	245.1	213.0
LSD:[1]									
5% level	([2])	([2])	([2])	([2])	26.4	([2])	22.6	([2])	11.5
10% level	([2])	([2])	([2])	([2])	20.9	([2])	17.9	([2])	9.6
CV[3]	7.1	8.5	8.0	8.0	5.4	11.5	4.1	6.1	7.6

[1]LSD=Least significant difference.
[2]No significant differences among values.
[3]CV=Coefficient of variation.

Table 9.—Indicated yields of 96° sugar, in pounds per acre, from preharvest samples of first-ratoon cane on Dania, Pahokee, Terra Ceia, and Torry muck and on Pompano fine sand

Variety	Average yield by soil series, farm, and sampling date[1]								Average yield, all farms
		Pahokee muck			Terra Ceia muck				
	Dania muck, Saunders 10/28/81	New Farm, Inc. 10/20/81	Duda 10/22/81	Okeelanta 10/23/81	South Florida Industries 10/20/81	Wedgworth 10/22/81	Torry muck, Beardsley 10/26/81	Pompano fine sand, Lykes Bros. 10/27/81	
CP 75–1322	7,565	4,452	11,033	8,797	8,905	8,071	14,064	12,102	9,373
CP 76–1519	5,502	6,296	12,852	9,991	7,133	10,010	10,566	10,130	9,060
CP 63–588	6,551	5,599	11,145	8,993	8,814	10,338	12,024	8,894	9,045
CP 76–1306	7,807	7,022	10,590	9,049	8,576	8,494	11,927	8,112	8,947
CP 76–1053	7,325	7,724	9,390	7,663	7,256	9,169	10,757	7,740	8,378
CP 76–1050	4,681	7,778	9,789	8,762	7,567	6,321	10,218	6,956	7,759
CP 75–1411	5,072	3,879	10,412	7,060	8,195	7,975	9,434	9,026	7,632
Mean	6,358	6,107	10,744	8,616	8,064	8,625	11,284	8,994	8,599
CV[2]	19.4	5.9	6.4	9.5	11.5	14.2	6.4	29.1	([3])

[1]Yields are based on early sucrose analysis, assuming that early yields of cane per acre are equal to actual yields at harvest.
[2]CV=Coefficient of variation.
[3]Not determined.

Table 10.—Indicated yields of 96° sugar, in pounds per ton of cane, from first-ratoon cane on Dania, Pahokee, Terra Ceia, and Torry muck and on Pompano fine sand

Variety	Average yield by soil series, farm, and harvest date								
	Dania muck, Saunders 1/4/82	Pahokee muck			Terra Ceia muck		Torry muck, Beardsley 2/19/82	Pompano fine sand, Lykes Bros. 12/15/81	Average yield, all farms
		Duda 11/30/81	Okeelanta 12/3/81	New Farm, Inc. 2/10/82	Wedgworth 1/12/82	South Florida Industries 2/12/82			
CP 76–1519	216.9	219.0	225.9	129.7	244.0	122.8	199.8	274.0	204.0
CP 63–588	213.5	218.2	233.2	100.6	237.1	81.2	218.6	272.8	196.9
CP 76–1050	177.8	232.5	241.4	104.6	241.5	42.7	227.9	269.1	192.2
CP 75–1322	179.4	205.5	216.2	129.8	224.4	72.4	210.1	268.2	188.2
CP 76–1053	181.4	234.1	231.5	71.8	243.0	33.3	199.8	274.9	183.7
CP 76–1306	179.8	210.8	227.6	89.7	214.0	44.3	194.7	257.6	177.3
CP 75–1411	161.2	217.9	206.7	75.9	215.6	33.1	145.0	270.0	165.7
Mean	187.2	219.7	226.1	100.3	231.4	61.4	199.4	269.5	186.9
LSD:[1]									
5% level	19.5	13.3	20.9	([2])	16.5	44.3	36.7	([2])	9.9
10% level	16.2	11.0	17.3	([2])	13.7	36.7	30.3	([2])	8.3
CV[3]	7.1	4.1	6.2	33.6	4.8	49.1	12.4	2.8	10.9

[1]LSD=Least significant difference.
[2]No significant differences among values.
[3]CV=Coefficient of variation.

Table 11.—Indicated yields of 96° sugar, in pounds per acre, from first-ratoon cane on Dania, Pahokee, Terra Ceia, and Torry muck and on Pompano fine sand

Variety	Average yield by soil series, farm, and harvest date								Average yield, all farms
		Pahokee muck			Terra Ceia muck				
	Dania muck, Saunders 1/4/82	Duda 11/30/81	Okeelanta 12/3/81	New Farm, Inc. 2/10/82	Wedgworth 1/2/82	South Florida Industries 2/12/82	Torry muck, Beardsley 2/19/82	Pompano fine sand, Lykes Bros. 12/15/81	
CP 76–1519	5,612	12,260	10,290	4,653	10,982	4,888	9,930	12,340	8,869
CP 75–1322	5,423	11,154	9,815	3,476	10,535	2,975	13,276	12,950	8,700
CP 63–588	5,678	11,545	10,132	2,924	10,223	2,888	13,136	10,585	8,389
CP 76–1306	7,262	11,670	10,700	3,536	10,327	1,999	11,602	9,672	8,346
CP 76–1050	4,138	10,778	9,512	3,730	7,614	1,643	11,138	9,285	7,230
CP 76–1053	5,827	10,906	8,643	2,608	9,175	1,287	9,358	8,710	7,064
CP 75–1411	4,560	10,190	6,903	1,689	7,237	1,330	5,946	9,838	5,961
Mean	5,500	11,215	9,428	3,231	9,442	2,430	10,627	10,483	7,794
LSD:[1]									
5% level	1,361	([2])	1,568	([2])	1,273	1,775	2,213	([2])	698
10% level	1,126	([2])	1,294	([2])	1,051	1,469	1,826	([2])	586
CV[3]	16.8	8.8	11.2	40.1	9.9	49.7	14.0	25.3	18.3

[1]LSD=Least significant difference.
[2]No significant differences among values.
[3]CV=Coefficient of variation.

Table 12.—Yields of cane, in tons per acre, from second-ratoon cane on Lauderhill, Pahokee, Terra Ceia, and Torry muck

Variety	Average yield by soil series, farm, and harvest date							Average yield, all farms
	Lauderhill muck		Pahokee muck			Terra Ceia muck, Wedgworth 1/13/82	Torry muck, Beardsley 2/19/82	
	Saunders 10/28/81	Okeelanta 12/29/81	Duda 1/15/82	New Farm, Inc.[1] 1/22/82	South Florida Industries 2/26/82			
CP 75–1091	56.36	54.33	61.05	43.51	54.05	64.65	67.23	57.31
CP 75–1082	43.83	43.33	45.41	43.96	49.05	46.59	60.66	47.55
CP 75–1693	51.78	51.74	37.82	34.55	39.17	45.59	50.55	44.46
CP 75–1553	40.74	40.94	41.86	31.47	41.80	45.83	54.17	42.40
CP 75–1935	36.93	42.95	39.08	32.95	37.92	36.97	51.38	39.74
CP 75–1353	44.39	38.88	29.46	29.87	37.17	41.17	40.88	37.40
CP 75–1283	38.38	40.84	41.39	21.11	35.04	32.45	49.82	37.00
CP 75–1984	42.21	40.74	40.62	20.13	35.32	44.25	34.69	36.85
CP 63–588	36.87	36.93	37.24	14.32	31.91	40.54	52.32	35.73
CP 75–1632	34.26	31.42	24.78	23.59	33.19	38.93	44.17	32.90
CP 75–1257	34.38	38.87	25.05	17.98	31.30	24.86	52.25	32.10
CP 75–1428	36.30	33.17	27.59	16.13	27.14	24.64	48.39	30.48
Mean	41.37	41.18	37.61	27.46	37.76	40.54	50.54	39.49
LSD:[2]								
5% level	5.38	6.10	9.27	11.93	6.12	8.06	6.03	2.85
10% level	4.46	5.05	7.68	9.89	5.07	6.68	4.99	2.40
CV[3]	9.00	10.30	17.10	30.10	11.20	13.80	8.20	13.80

[1]Severe Florida water rat damage was observed in this experiment.
[2]LSD=Least significant difference.
[3]CV=Coefficient of variation.

Table 13.—Indicated yields of 96° sugar, in pounds per ton of cane, from preharvest samples of second-ratoon cane on Lauderhill, Pahokee, Terra Ceia, and Torry muck

Variety	Average yield by soil series, farm, and harvest date						Average yield, all farms
	Lauderhill muck, Okeelanta 10/23/81	Pahokee muck			Terra Ceia muck, Wedgworth 10/22/81	Torry muck, Beardsley 10/26/81	
		New Farm, Inc. 10/20/81	South Florida Industries 10/20/81	Duda 10/22/81			
CP 75–1632	235.9	224.3	256.4	252.4	261.7	238.0	244.8
CP 75–1353	251.2	229.5	227.3	259.9	230.3	253.7	242.0
CP 75–1257	217.2	186.4	212.8	256.6	221.3	227.1	220.2
CP 75–1553	208.8	231.0	212.8	235.7	205.9	224.2	219.7
CP 75–1935	224.3	204.5	200.9	239.3	212.9	229.6	218.6
CP 75–1283	210.3	210.5	193.5	232.6	212.2	233.1	215.4
CP 75–1984	197.5	205.4	193.8	235.4	241.1	205.6	213.1
CP 63–588	200.4	231.6	195.0	218.8	207.2	222.3	212.5
CP 75–1082	216.6	215.8	207.5	207.5	216.6	198.5	210.4
CP 75–1428	215.4	212.4	208.0	198.4	208.1	213.5	209.3
CP 75–1091	202.9	193.9	176.0	212.8	197.0	212.8	199.2
CP 75–1693	189.5	199.3	175.7	186.8	183.4	194.7	188.2
Mean	214.2	212.1	205.0	228.0	216.5	221.1	216.1
LSD:[1]							
5% level	26.5	([2])	30.3	29.6	([2])	22.3	13.8
10% level	22.0	([2])	25.1	24.5	([2])	18.5	11.6
CV[3]	6.1	9.7	7.2	6.4	11.2	4.9	7.8

[1]LSD=Least significant difference.
[2]No significant differences among values.
[3]CV=Coefficient of variation.

Table 14.—Indicated yields of 96° sugar, in pounds per acre, from preharvest samples of second-ratoon cane on Lauderhill, Pahokee, Terra Ceia, and Torry muck

Variety	Average yield by soil series, farm, and sampling date[1]						Average yield, all farms
	Lauderhill muck, Okeelanta 10/23/81	Pahokee muck			Terra Ceia muck, Wedgworth 10/22/81	Torry muck, Beardsley 10/26/81	
		New Farm, Inc. 10/20/81	South Florida Industries 10/20/81	Duda 10/22/81			
CP 75–1091	10,374	8,766	9,964	12,123	12,382	14,480	11,348
CP 75–1082	9,496	9,508	9,491	8,045	8,981	12,105	9,604
CP 75–1935	10,545	6,361	8,605	9,770	7,418	12,608	9,218
CP 75–1553	9,481	7,051	9,280	8,316	8,524	12,372	9,171
CP 75–1353	8,868	7,578	8,951	7,589	10,426	10,174	8,931
CP 75–1693	9,232	6,283	7,439	7,889	8,126	10,036	8,167
CP 75–1632	6,798	4,821	9,094	7,599	8,863	10,096	7,878
CP 75–1984	7,705	5,028	7,128	8,659	10,533	6,916	7,661
CP 75–1283	8,181	3,270	7,028	8,976	6,361	12,002	7,636
CP 75–1257	8,187	4,570	7,052	6,303	5,222	11,652	7,164
CP 63–588	6,355	2,094	6,452	8,112	8,522	11,266	7,133
CP 75–1428	6,919	3,282	5,858	5,271	5,004	10,303	6,106
Mean	8,512	5,718	8,029	8,221	8,364	11,168	8,335
CV[2]	9.9	30.5	13.8	20.4	19.0	12.0	([3])

[1]Yields are based on early sucrose analysis, assuming that early yields of cane per acre are equal to actual yields at harvest.

[2]CV=Coefficient of variation.

[3]Not determined.

Table 15.—Indicated yields of 96° sugar, in pounds per ton of cane, from second-ratoon cane on Lauderhill, Pahokee, Terra Ceia, and Torry muck

Variety	Average yield by soil series, farm, and harvest date							Average yield, all farms
	Lauderhill muck		Pahokee muck			Terra Ceia muck, Wedgworth 1/13/82	Torry muck, Beardsley 2/19/82	
	Saunders 10/28/81	Okeelanta 12/29/81	Duda 1/15/82	New Farm, Inc. 1/22/82	South Florida Industries 2/26/82			
CP 75–1632	240.8	251.6	252.5	226.4	86.5	228.8	232.0	216.9
CP 75–1283	232.1	250.8	243.7	208.6	105.2	220.5	188.5	207.1
CP 75–1353	221.4	256.5	251.8	230.3	26.6	220.8	229.6	205.3
CP 75–1257	211.4	260.8	253.6	204.9	70.0	208.8	212.1	203.1
CP 75–1935	216.5	238.2	238.0	209.0	74.2	221.5	199.1	199.5
CP 63–588	211.6	234.3	243.5	189.3	76.8	214.1	212.7	197.5
CP 75–1553	229.9	236.3	254.4	198.2	44.2	213.6	206.3	197.5
CP 75–1082	204.6	232.5	215.6	205.9	95.8	194.2	188.6	191.0
CP 75–1091	205.2	222.8	223.6	196.4	98.4	198.2	192.6	191.0
CP 75–1984	214.5	233.4	233.1	174.1	1.6	220.2	195.1	181.7
CP 75–1693	197.5	231.5	233.0	187.5	24.9	206.5	174.8	179.4
CP 75–1428	190.8	218.6	219.7	191.0	48.1	164.4	190.5	174.7
Mean	214.7	238.9	238.5	201.8	62.7	209.3	201.8	195.4
LSD:[1]								
5% level	18.8	11.2	26.5	23.7	40.9	30.5	24.7	9.7
10% level	15.6	9.3	22.0	19.7	33.8	25.3	20.4	8.1
CV[2]	6.1	3.3	7.7	8.1	45.2	10.1	8.5	9.4

[1]LSD=Least significant difference.
[2]CV=Coefficient of variation.

Table 16.—Indicated yields of 96° sugar, in pounds per acre, from second-ratoon cane on Lauderhill, Pahokee, Terra Ceia, and Torry muck

Variety	Average yield by soil series, farm, and harvest date							Average yield, all farms
	Lauderhill muck		Pahokee muck			Terra Ceia muck, Wedgworth 1/13/82	Torry muck, Beardsley 2/19/82	
	Saunders 10/28/81	Okeelanta 12/29/81	Duda 1/15/82	New Farm, Inc.[1] 1/22/82	South Florida Industries 2/26/82			
CP 75–1091	11,556	12,102	13,647	8,639	5,299	12,814	12,945	11,000
CP 75–1082	8,963	10,091	9,815	9,047	4,660	9,043	11,479	9,014
CP 75–1553	9,383	9,645	10,634	6,234	1,705	9,785	11,130	8,359
CP 75–1693	10,256	11,968	8,864	6,449	972	9,521	8,844	8,125
CP 75–1935	8,014	10,242	9,351	6,895	2,946	8,162	10,216	7,975
CP 75–1283	8,904	10,243	10,179	4,443	3,702	7,174	9,376	7,717
CP 75–1353	9,850	9,991	7,393	6,881	976	9,115	9,405	7,659
CP 63–588	7,793	8,664	9,049	2,821	2,498	8,693	11,139	7,237
CP 75–1632	8,254	7,939	6,259	5,462	2,945	9,006	10,270	7,162
CP 75–1984	8,997	9,511	9,421	3,485	63	9,752	6,774	6,857
CP 75–1257	7,294	10,132	6,348	3,802	2,212	5,236	11,043	6,581
CP 75–1428	6,925	7,244	6,066	3,093	1,243	4,050	9,211	5,404
Mean	8,849	9,814	8,919	5,604	2,435	8,529	10,153	7,757
LSD:[2]								
5% level	1,374	1,518	2,597	2,711	2,004	2,324	1,682	1,034
10% level	1,138	1,257	2,151	2,246	1,660	1,925	1,392	868
CV[3]	10.8	10.7	20.2	33.5	39.9	18.9	11.5	18.01

[1]Severe Florida water rat damage was observed in this experiment.
[2]LSD=Least significant difference.
[3]CV=Coefficient of variation.

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